

ABSTRACT

[0091] A high security identification card includes an on-board memory for stored biometric data and an on-board sensor for capturing live biometric data. An on-board processor on the card performs a matching operation to verify that the captured biometric data matches the locally stored biometric data. Only if there is a positive match is any data transmitted from the card for additional verification and/or further processing. Preferably, the card is ISO SmartCard compatible. In one embodiment, the ISO SmartCard functions as a firewall for protecting the security processor used for storing and processing the protected biometric data from malicious external attack via the ISO SmartCard interface. In another embodiment, the security processor is inserted between the ISO SmartCard Interface and an unmodified ISO SmartCard processor and blocks any external communications until the user's fingerprint has been matched with a previously registered fingerprint. Real-time feedback is provided while the user is manipulating his finger over the fingerprint sensor, thereby facilitating an optimal placement of the finger over the sensor. The card may be used to enable communication with a transactional network or to obtain physical access into a secure area.